

**FORMER WEBER PROPERTY
WETLAND MITIGATION SITE**

ISGS #79

US 20

FAP 301

Sequence #10487

Stephenson County, near Freeport, Illinois

Primary Project Manager: Eric T. Plankell

Secondary Project Manager: not assigned

SITE HISTORY

- September 2010: IDOT District 2 requested that ISGS prepare conceptual plans for wetland creation, and plans were provided by ISGS.
- November 2010: Wetland construction was completed, and ISGS was tasked by IDOT to monitor wetland hydrology.
- May 2011: ISGS installed a post-construction monitoring network.

WETLAND HYDROLOGY CALCULATION FOR 2011

The area that satisfied wetland hydrology criteria (Environmental Laboratory 1987) for greater than 5% of the 2011 growing season is estimated to be 1.7 ha (4.3 ac) out of a total site area of 5.8 ha (14.3 ac), and the area that satisfied wetland hydrology criteria for greater than 12.5% of the 2011 growing season is estimated to be 1.5 ha (3.8 ac). Using the 2010 Midwest Region Supplement (U.S. Army Corps of Engineers 2010) to the 1987 Manual, it is estimated that 1.7 ha (4.2 ac) satisfied wetland hydrology criteria for 14 or more consecutive days during the growing season. These estimates are based on the following factors:

- The median date that the growing season begins in Freeport, Illinois, is April 13, and the season lasts 183 days (MRCC 2011). According to the 1987 Manual, 5% of the growing season is 9 days, and 12.5% of the growing season is 23 days. According to methods outlined in the 2010 Midwest Region Supplement, it is estimated that March 16 was the starting date of the 2011 growing season based on soil temperatures measured at the adjacent Freeport Bypass West Wetland Mitigation Site 6W (ISGS #72).
- Total precipitation for the monitoring period, as recorded at the Freeport Wastewater Plant was 121% of normal, and was 142% of normal for the period March through May 2011. Nearly 10.5 inches of precipitation were recorded on site during July 21-31, 2011. The subsequent late-season flood on the Pecatonica River peaked on July 28 and resulted in the highest water levels recorded on the site during the 2011 growing season.
- In 2011, water levels measured in monitoring wells 8S and 9S satisfied wetland hydrology criteria for greater than 5% and greater than 12.5% of the growing season, according to the 1987 Manual. According to the 2010 Midwest Region Supplement, wells 8S and 9S also satisfied wetland hydrology criteria for 14 or more consecutive days of the growing season.

- Surface-water levels measured by the data loggers at Gauges A, E, and F indicated inundation at or above 230.40 m, 230.40 m, and 231.12 m (755.91 ft, 755.91 ft, and 758.27 ft), respectively, for greater than 5% of the growing season, and inundation at or above 230.33 m, 230.33 m, and 231.08 m (755.68 ft, 755.68 ft, and 758.14 ft), respectively, for greater than 12.5% of the growing season, according to the 1987 Manual. Per the 2010 Midwest Region Supplement, surface-water levels measured by the data logger at Gauges A, E, and F indicated inundation at or above 230.41 m, 230.37 m, and 231.11 m (755.94 ft, 755.81 ft, and 758.23 ft), respectively, for 14 or more consecutive days of the growing season.

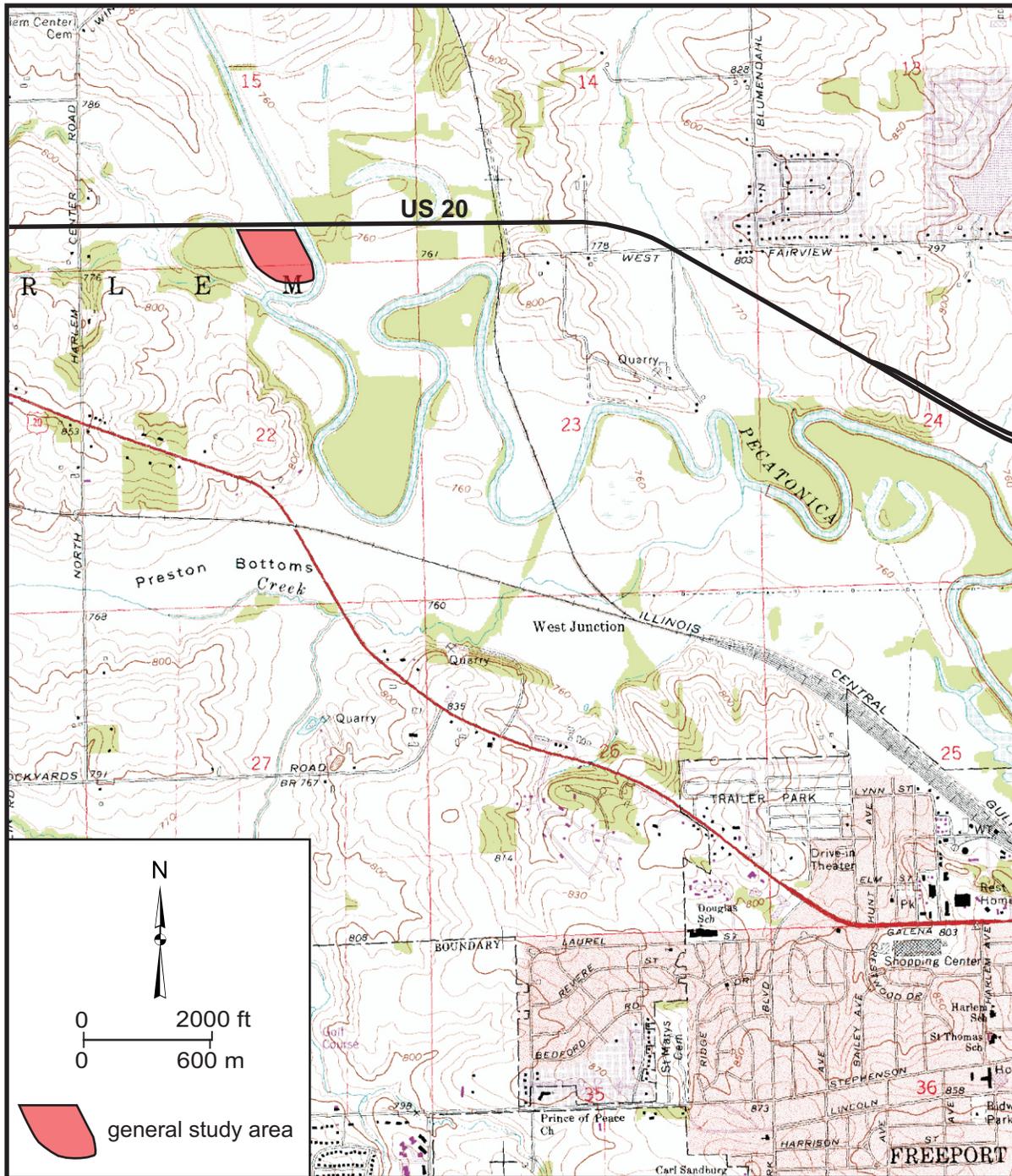
PLANNED FUTURE ACTIVITIES

- Monitoring will continue until no longer required by IDOT.

Former Weber Property Wetland Mitigation Site (US 20, FAP 301)

General Study Area and Vicinity

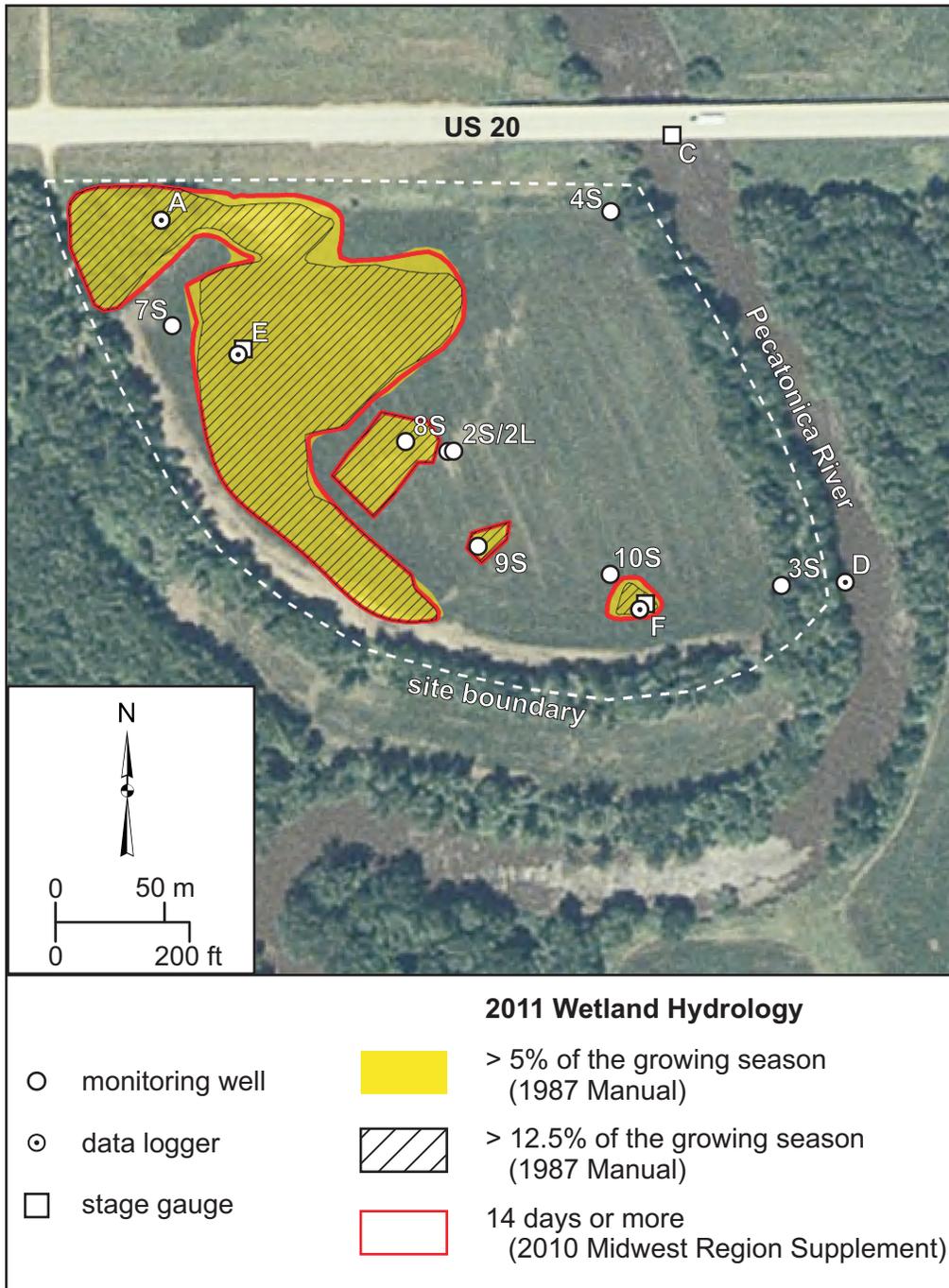
Map based on the USGS Topographic Series, Freeport West, IL, 7.5-minute Quadrangle
(USGS 1971, photorevised 1978). Contour interval is 10 feet.



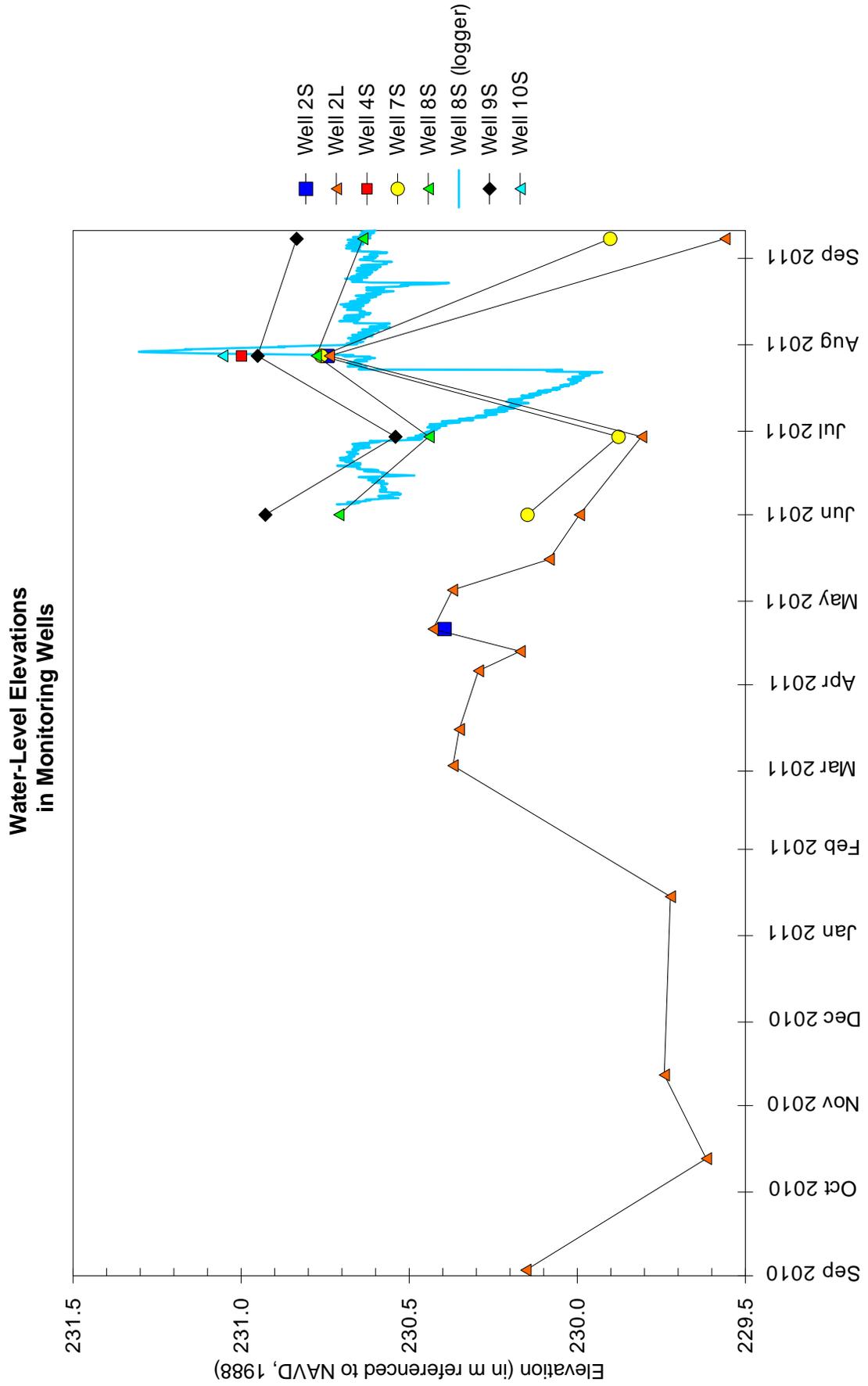
Former Weber Property Wetland Mitigation Site (US 20, FAP 301)

Estimated Areal Extent of 2011 Wetland Hydrology
September 1, 2010 through September 8, 2011

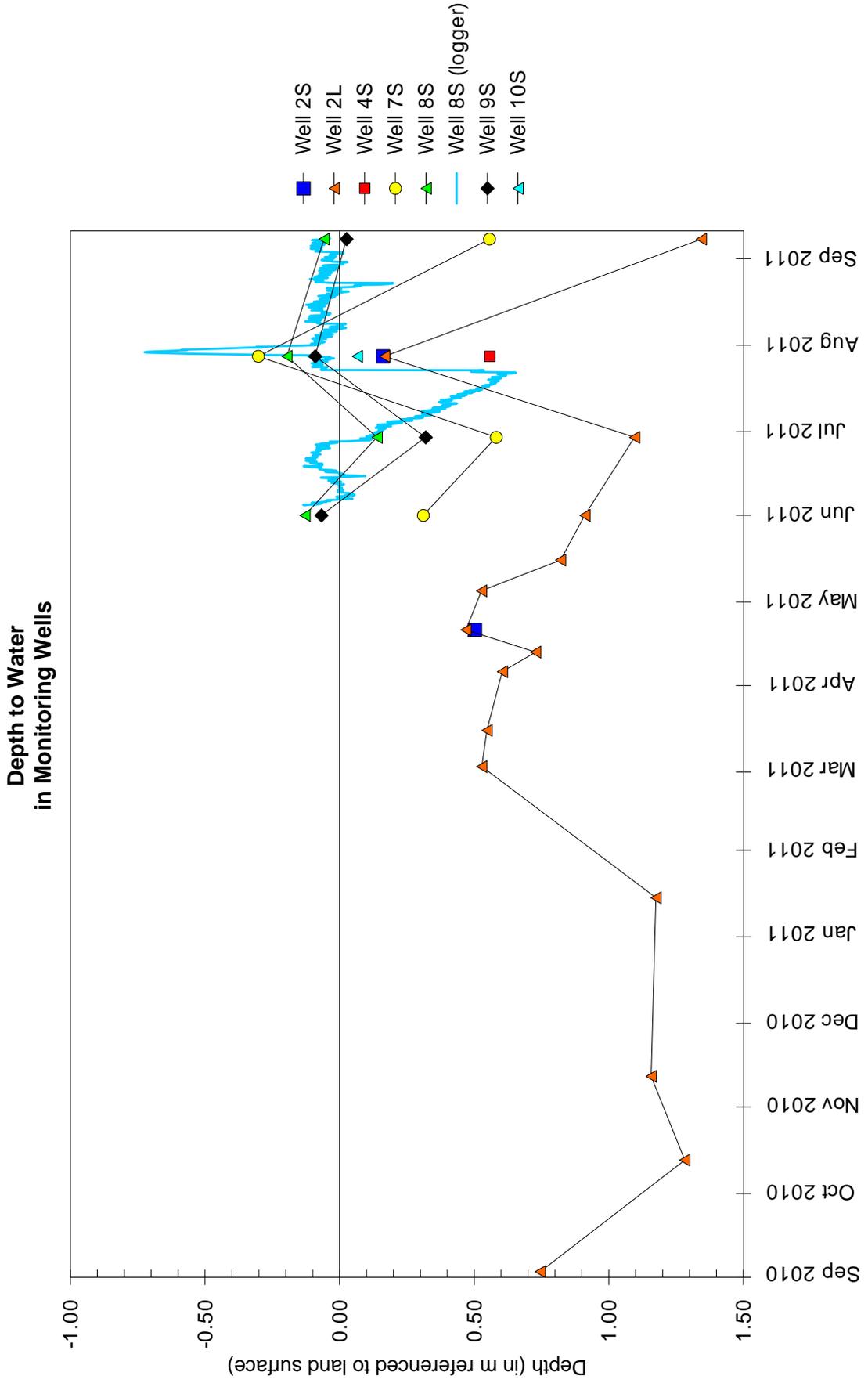
Map based on National Agricultural Imagery Program (NAIP) digital orthophotograph, Stephenson County, Illinois, taken August 20, 2007 (USDA-FSA 2007)



Former Weber Property Wetland Mitigation Site September 1, 2010 through September 8, 2011

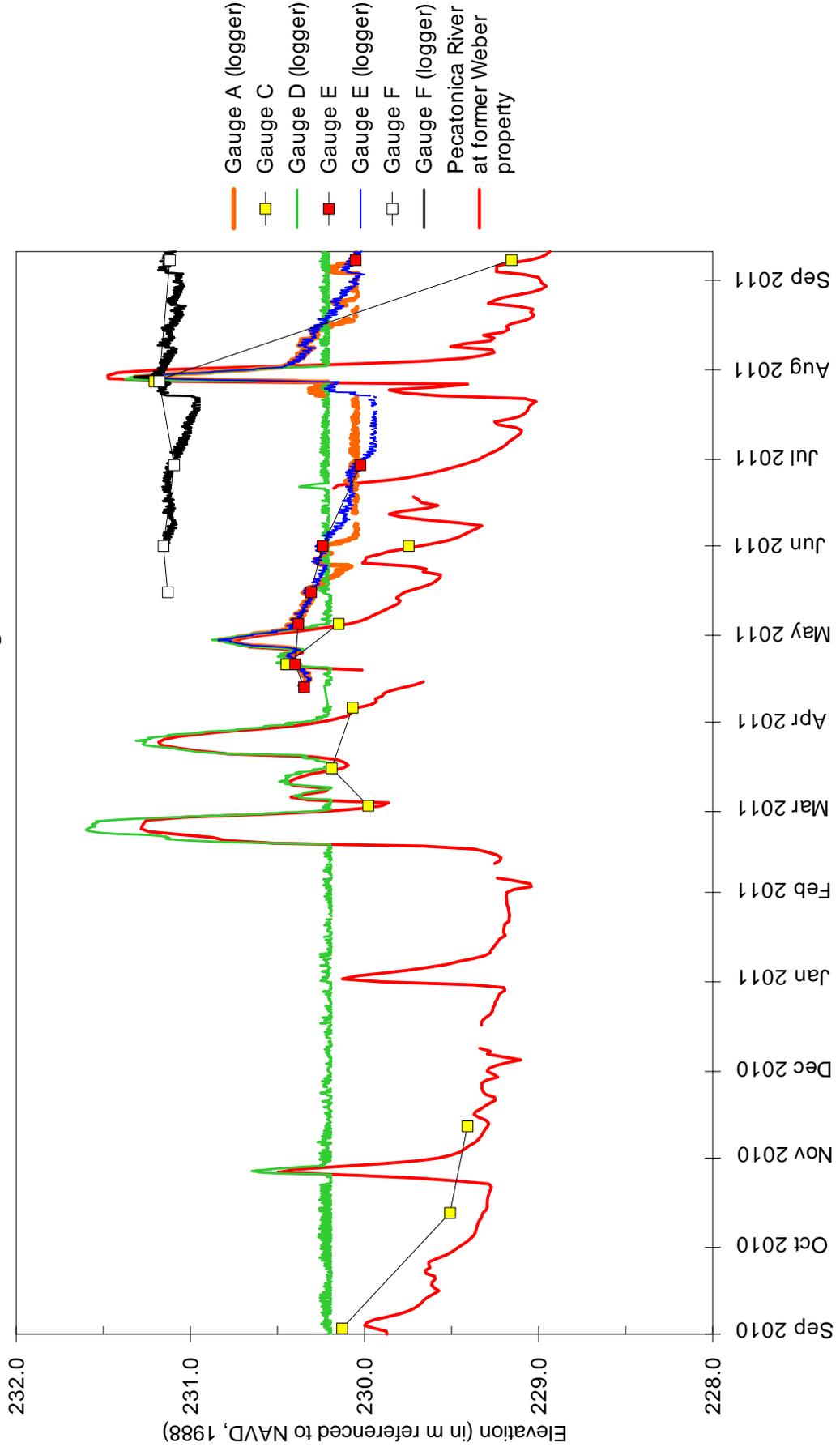


Former Weber Property Wetland Mitigation Site September 1, 2010 through September 8, 2011



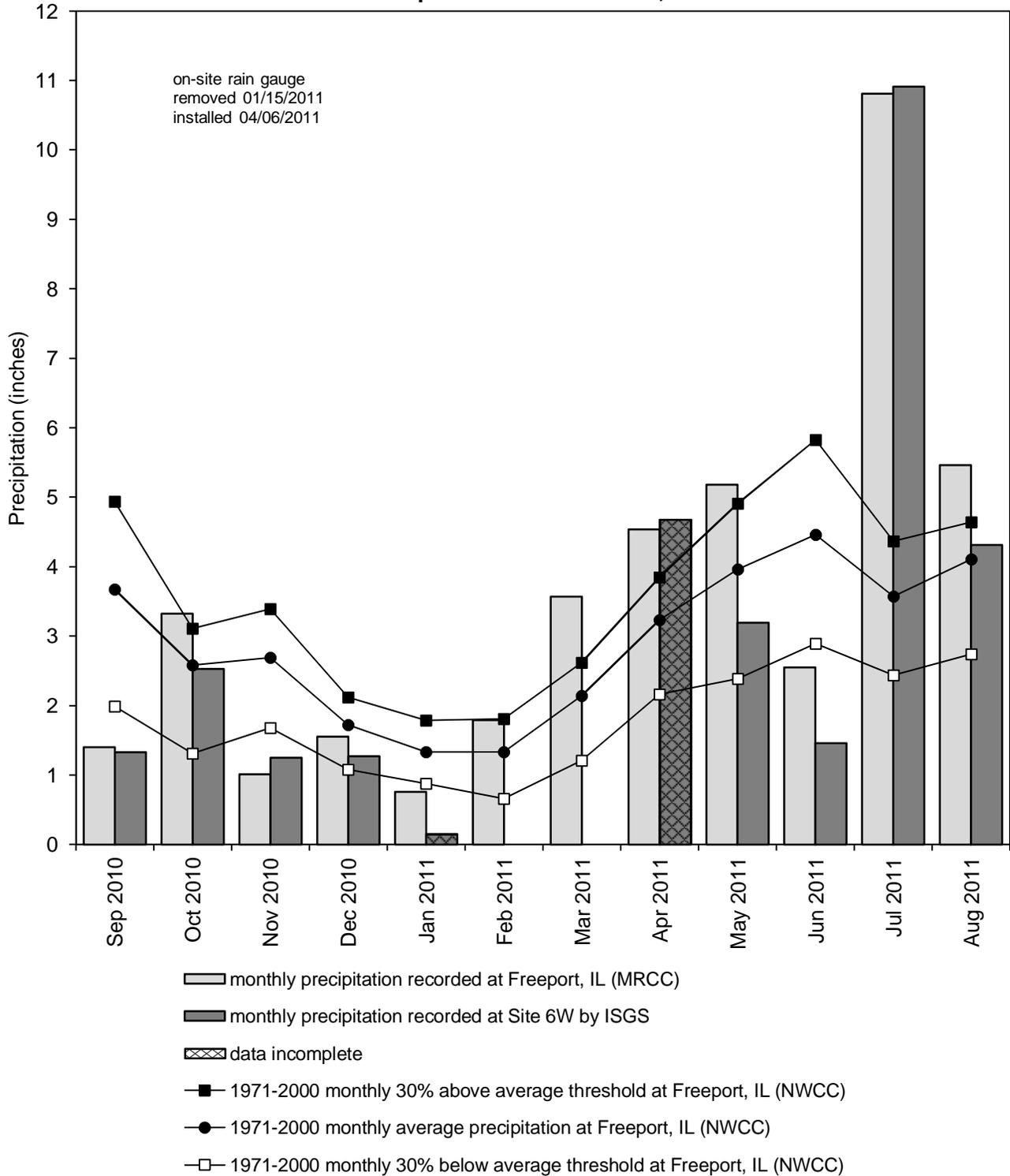
Former Weber Property Wetland Mitigation Site September 1, 2010 through September 8, 2011

Water-Level Elevations
at Surface-Water Gauges



Former Weber Property Wetland Mitigation Site September 2010 through August 2011

Total Monthly Precipitation Recorded at Site 6W and at the Freeport Wastewater Plant, IL



Graph last updated 10/31/2011